

Application No. 10/700,142
Amendment Dated 8/22/06
Reply to Office Action of 6/22/06

This listing of claims will replace all prior versions, and listings, of claims in the application:

In the Claims:

1. (CURRENTLY AMENDED) Apparatus for applying a printed label to a loaded pallet, comprising:

a label printer capable of printing a label;

a label applicator mechanism including a label applicator arm rotatable about a generally vertical axis and operatively connected with said label printer for directly receiving a label printed by said label printer and rotating the printed label about the generally vertical axis toward one side of the loaded pallet for applying the printed label thereto at a predetermined label position which is variably definable for individual loaded pallets independent of pallet size, the label applicator arm rotating about the generally vertical axis during application of the printed label to the one side of the loaded pallet:

a drive mechanism capable of moving said label applicator mechanism in a vertical direction relative to the loaded pallet; and

a programmable control operatively coupled to said drive mechanism and configured to receive data defining said predetermined label position, said programmable control, in response to receiving said label position data, causing said drive mechanism to move said label applicator mechanism in the vertical direction so as

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to apply the printed label to the one side of the loaded pallet at the predetermined label position.

2. (ORIGINAL) The apparatus of claim 1, wherein said label applicator mechanism comprises:

a rotatable applicator arm; and
a label applicator head mounted on said applicator arm and capable of carrying the printed label during rotation of the printed label toward the one side of the loaded pallet.

3. (ORIGINAL) The apparatus of claim 2 further comprising a rotary drive mechanism capable of rotating said applicator arm and said label applicator head mounted thereto.

4. (ORIGINAL) The apparatus of claim 1, wherein said programmable control comprises a controller capable of receiving said label position data from a remote data source.

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5. (ORIGINAL) The apparatus of claim 1, wherein said drive mechanism is capable of moving said label applicator mechanism to a plurality of different positions so as to apply the printed label to the one side of the loaded pallet at any one of a plurality of predetermined label positions which are variably definable for the loaded pallet.
6. (ORIGINAL) The apparatus of claim 1 further comprising a carriage assembly mounted for movement on a support member, wherein said label applicator mechanism is mounted on said carriage assembly.
7. (ORIGINAL) The apparatus of claim 6, wherein said label printer is mounted on said carriage assembly.
8. (ORIGINAL) The apparatus of claim 6, wherein said drive mechanism comprises an elongated rack mounted on said support member and a pinion operatively connected to said carriage assembly and capable of engaging said rack.
9. (ORIGINAL) The apparatus of claim 8, wherein said drive mechanism further comprises a motor, and wherein said pinion is operatively connected to an output of said motor.

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10. (CURRENTLY AMENDED) Apparatus for applying printed labels to a loaded pallet, comprising:

a label printer capable of printing labels;

a label applicator mechanism including a label applicator arm rotatable about a generally vertical axis and operatively connected with said label printer for directly receiving labels printed by said label printer and rotating the printed labels about the generally vertical axis toward two sides of the loaded pallet for applying the printed labels at a predetermined label position, for each of the two sides of the loaded pallet, which is variably definable for individual loaded pallets independent of pallet size, the label applicator arm rotating about the generally vertical axis during application of the printed labels to the two sides of the loaded pallet;

a drive mechanism capable of moving said label applicator mechanism in a vertical direction relative to the loaded pallet; and

a programmable control operatively coupled to said drive mechanism and configured to receive data defining said predetermined label positions for each of the two sides of the loaded pallet, said programmable control, in response to receiving said label position data, causing said drive mechanism to move said label applicator mechanism in the vertical direction so as to apply the printed labels to the two sides of the loaded pallet at the predetermined label positions.

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11. (ORIGINAL) The apparatus of claim 10, wherein said label applicator mechanism comprises:

a rotatable applicator arm; and

a label applicator head mounted on said applicator arm and capable of carrying the printed labels during rotation of the printed labels toward the two sides of the loaded pallet.

12. (ORIGINAL) The apparatus of claim 11 further comprising a rotary drive mechanism capable of rotating said applicator arm and said label applicator head mounted thereto.

13. (ORIGINAL) The apparatus of claim 10, wherein said programmable control comprises a controller capable of receiving said label position data from a remote data source.

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14. (ORIGINAL) The apparatus of claim 10, wherein said drive mechanism is capable of moving said label applicator mechanism to a plurality of different positions for each of the two sides of the loaded pallet so as to apply the printed labels to each of the two sides of the loaded pallet at any one of a plurality of predetermined label positions which are variably definable for the loaded pallet.
15. (ORIGINAL) The apparatus of claim 10 further comprising a carriage assembly mounted for movement on a support member, wherein said label applicator mechanism is mounted on said carriage assembly.
16. (ORIGINAL) The apparatus of claim 15, wherein said label printer is mounted on said carriage assembly.
17. (ORIGINAL) The apparatus of claim 15, wherein said drive mechanism comprises an elongated rack mounted on said support member and a pinion operatively connected to said carriage assembly and capable of engaging said rack.
18. (ORIGINAL) The apparatus of claim 17, wherein said drive mechanism further comprises a motor, and wherein said pinion is operatively connected to an output of said motor.

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19. (WITHDRAWN) A method for applying a printed label to one side of a loaded pallet at a pallet labeler station having a label applicator mechanism, comprising:

generating data that defines a predetermined label position on the loaded pallet;

printing a label with information relevant to goods loaded on the pallet;
and

rotating the label applicator mechanism so as to apply the printed label with the label applicator mechanism to the loaded pallet at the predetermined label position defined by the data.

20. (WITHDRAWN) The method of claim 19, wherein the step of generating the data that defines the predetermined label position on the loaded pallet comprises the step of:

receiving the label position data from an upstream pallet handling apparatus.

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21. (WITHDRAWN) The method of claim 19, wherein the step of generating the data that defines the predetermined label position on the loaded pallet comprises the steps of:

receiving data relevant to the goods loaded onto the pallet from an upstream pallet handling apparatus; and

deriving the label position data from the data relevant to the goods loaded onto the pallet and other data.

22. (WITHDRAWN) The method of claim 21, wherein the label position data is derived from a look-up table containing data relevant to the goods loaded onto the pallet.

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23. (WITHDRAWN) A method for applying a printed label to two sides of a loaded pallet at a pallet labeler station having a label applicator mechanism, comprising:

generating data that defines a predetermined label position on the loaded pallet for each of the two sides of the loaded pallet;

printing labels with information relevant to goods loaded on the pallet; and

rotating the label applicator mechanism so as to apply the printed labels with the label applicator mechanism to each of the two sides of the loaded pallet at the predetermined label positions defined by the data.

24. (WITHDRAWN) The method of claim 23, wherein the step of generating the data that defines the predetermined label position on each of the two sides of the loaded pallet comprises the step of:

receiving the label position data from an upstream pallet handling apparatus.

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25. (WITHDRAWN) The method of claim 23, wherein the step of generating the data that defines the predetermined label positions on each of two sides of the loaded pallet comprises the steps of:

receiving data relevant to the goods loaded onto the pallet from an upstream pallet handling apparatus; and

deriving the label position data from the data relevant to the goods loaded onto the pallet and other data.

26. (WITHDRAWN) The method of claim 25, wherein the label position data is derived from a look-up table containing data relevant to the goods loaded onto the pallet.